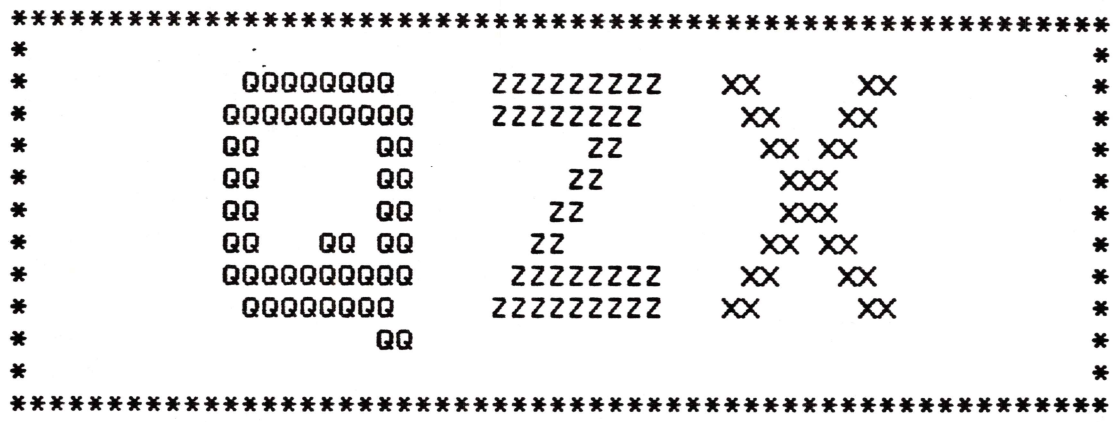
QQQQQQQQ ZZZZZZZZZ XX XX
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The Journal Covering Amateur Radio & Sinclair Computers
ZX80; Micro-Ace; ZX81; TS1000, 1500, & 2068; QL; Z88
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EDITOR'S NOTES
K5XY

WA6OUC, Warren, from Vallejo, CA says that he is still trying to keep the QZX Timex/Sinclair Computer Users Group net going on 40 meters. It meets on Saturday mornings and he, W6JPB, and WA6DLI usually go to at least 10:30 or 11:00. They are also on packet with the addresses of W6JPB@N6CCW.#SOCAL, WA6DLI@KB6GVT.#SOCAL, and WA6OUC@KJ6FY.#NOCAL.

It was a good thing I got the last issue of QZX out when I did. That week I went into the hospital for a knee operation. They let me out at noon, but by evening I was back in with an emergency complication. The next day I was out again, but I have been on crutches ever since. That is slowing me down a bit, but no more complications are developing.

George, KF5GG, has sent me an interesting announcement about a national Times/Sinclair Public Domain Library in action right now. They have a collection of over 335 programs for the T/S1000 and over 150 programs for the T/S2068. The programs are available on tapes ($4.00) or Larken disks (also $4.00). For a listing of the programs send a SASE to Tim Ward, 5142-D Ginkkso Dr. SW, Tacoma, WA 98439.

There is another interesting development on the Sinclair front. Pete Fischer, some of whose articles on Sinclair telecommunications have appeared in QZX, telephoned me shortly before this issue went to press with the news that a FIDO net Echo on Sinclair computers is now available. Echoes are conferences to which your local Fido net telephone BBS can inexpensively subscribe. This promises to be a good, inexpensive source of Sinclair information. More information will be forthcoming as I get it.

UNCLASSIFIED ADS

WANTED: UNCLASSIFIED ADS for publication in QZX. Cost is 1 cent for each keystroke (characters, blanks, etc.). Payment must be included with order. This is an excellent way to sell your program or unwanted equipment, ask for help, or find a specific program. Send your ad with payment to QZX, 2025 O'Donnell, Las Cruces, NM 88001.

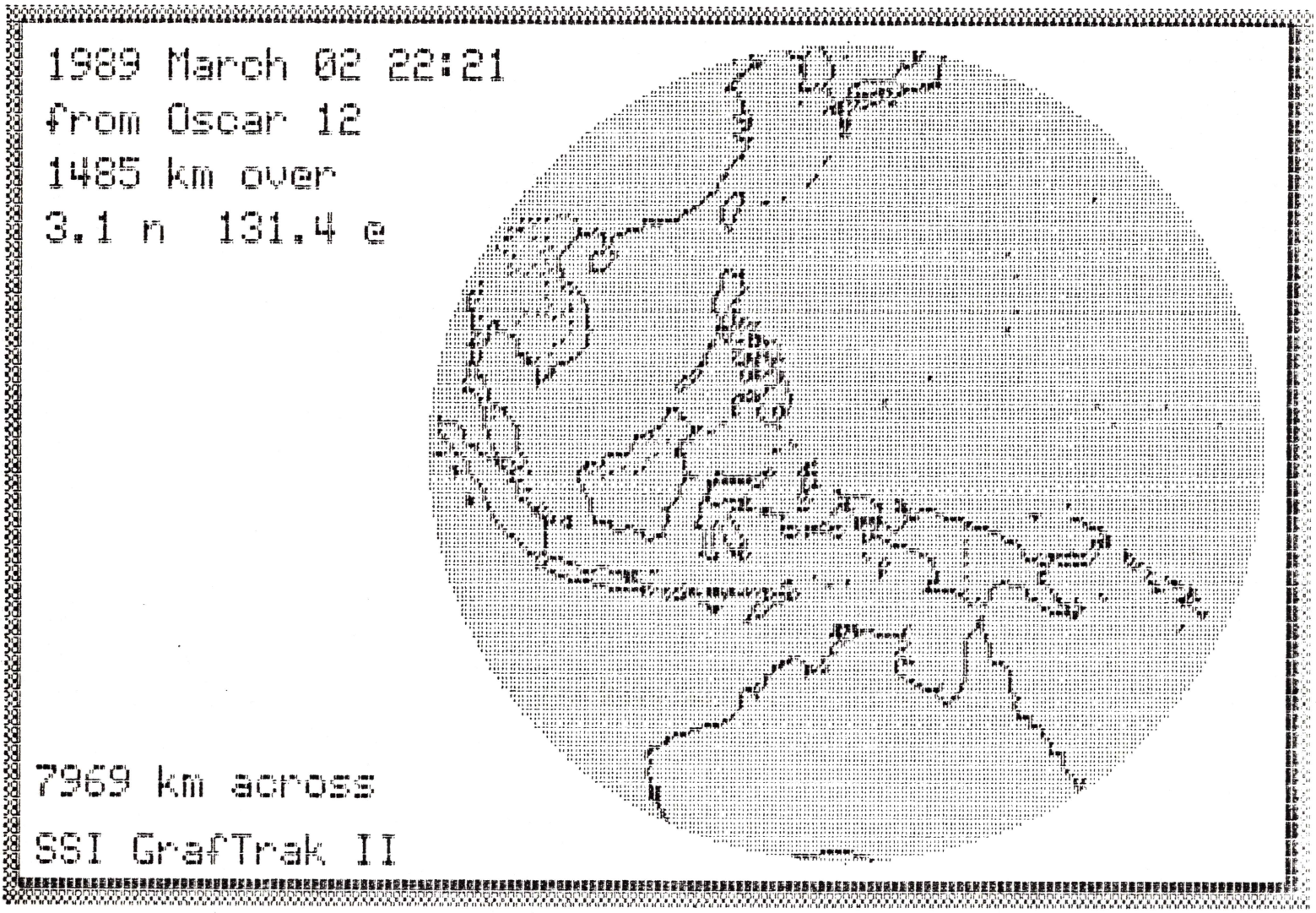
QZX Discount: 15% discount on all orders mentioning QZX. T & C Services (address in ad this issue.)

WANTED: A Hunter Board. Fully populated if possible. Warren Tucker, 348 Idors Ave, Vallejo, CA 94591. Ph 1 (707) 643-5013. Or, by way of Packet BBS to WA6OUC@KJ6FY.#NORCAL.

QZX FRIENDS

W4EDL -- Bob renewed and said "don't ever retire, its too much work."

WA6OUC -- Warren is another friend who renewed and sent a modest contribution to the stamp fund.



ANOTHER SCREEN DUMP OF A SATELLITE PROGAM from WA6DLI

TS2068 CW PRACTICE PROGRAM
WA6DLI

This program is a neat CW practice system for the TS2068 and Spectrum. It first trains you with letter groups based on their similarity and confusion factors so you will learn to distinguish them apart.

Each of the lessons numbered 1 to 8 offers in its menu a choice:

LEARN/PRACTICE/WORDS selected by L/P/W ?

In the learn mode you just watch and listen as the characters are presented and sounded. In the practice mode, you write down what is send and enter it back into the computer. The computer then compares what you received with what it sent and returns a score.

In the word selection, you are sent "words" or really letter groups in some cases, made from the letters in the lesson number, and then scored as in the practice mode.

When you have gone through lessons 1 to 8, you can then practice with the lettered lessons on what you have learned.

A is words, C is "difficult characters", and D is sending practice where you send to the computer, E saves the program to tape.

The program is from SARUG, the Sinclair Amstrad Radio User Group in England, and was written by Paul Newman, G4INP, the publisher of their newsletter.

Here is what the main menu should look like if you get it right when you type in the program.

```
#### G4INP MORSE AID ####

MENU   PRESS KEY CHOICE

1          E I S H T M O
2          A U V
3          N D B
4          A W J
5          C K P G
6          R L Q Z
7          F X Y
8          1 2 3 4 5 6 7 8 9 0
A          WORDS
C          DIFFICULT CHARS.
D          SENDING PRACTICE
E          SAVE SYSTEM

SPEED = 13 WPM
PRESS <S> TO CHANGE SPEED
```

The menu will give an idea of the organization. The sound is good. I would recommend practice at the higher speeds of 8 or 10 as 4 or lower are too slow to sound the character so you get a feel for it. You have heard novices on the air sending with big gaps between elements of the letter and it loses its character. The program is excellent when the speed is 'normal' but beginner level.

```
 10 REM **********************
 20 REM
 30 REM MORSE AID SPECTRUM
 40 REM    BY G4INP
 50 REM NONPROFIT COPYING OK!
 60 REM
 70 REM **********************
 80 GO SUB 1080: REM INITIALISE
 90 GO SUB 1330: REM THE MENU
100 REM
110 REM HERE WITH GROUPS 1-8
120 REM ASK IF TEACH/PRACTICE
130 REM
140 READ L$,A$: REM GET NO. & LESSON STRING
150 CLS : PRINT 'T$'"SPEED : ";S;" LESSON : ";L$
160 PRINT '">>> ";A$;" <<<"'"ENTER <M> FOR MENU"
170 POKE 23617,236: INPUT AT 13,0;AT 0,0;"LEARN/PRACTICE/WORD L/P/W "
; LINE Z$
180 IF Z$<>"M" AND Z$<>"L" AND Z$<>"P" AND Z$<>"W" THEN GO TO 170
190 IF Z$="M" THEN GO TO 90
195 IF Z$="W" THEN GO TO 5000
200 PRINT AT 7,0;" ";TAB 31
210 IF Z$="P" THEN GO TO 360
220 PRINT AT 7,0;"LEARN - PLEASE WATCH & LISTEN"
230 LET DY=0: LET Z$=A$: LET K$=Z$: LET PRINT=1
235 PAUSE 100
240 FOR Q=1 TO LEN A$
250 GO SUB 750
260 PRINT AT 16,0;"PRESS <R> TO REPEAT"
270 LET X$=INKEY$: IF X$="" THEN GO TO 270
280 LET LINE=12: GO SUB 940
290 LET LINE=16: GO SUB 940
300 IF X$="R" THEN GO TO 250
310 NEXT Q
320 GO TO 150
330 REM
340 REM PRACTICE SESSION
350 REM
360 CLS : PRINT 'T$'"SPEED : ";S;" LESSON : ";L$
370 PRINT '">>> ";A$;" <<<"'"ENTER <M> FOR MENU"
380 LET Z$="": LET PRINT=0
390 LET R1=LEN A$
400 FOR Z=1 TO 20
410 LET P=1+INT (RND*R1)
420 LET Z$=Z$+A$(P)
430 NEXT Z
435 LET DY=20: LET SUB=0
440 PRINT AT 19,0:"DELAY SET = ";DY
450 PRINT AT 20,0;"<S> SHORTENS CHARACTER DELAY"'"<L> LENGTHENS or
PRESS <ENTER>"
460 LET X$=INKEY$: IF X$="" THEN GO TO 460
470 IF X$="M" THEN GO TO 90
480 IF X$="S" THEN LET DY=DY-20+20*(DY<=20)
490 IF X$="L" THEN LET DY=DY+20
500 LET LINE=19: GO SUB 940: PRINT AT 19,0;"DELAY SET = ";DY
510 IF CODE X$=13 THEN GO TO 530
520 PAUSE 80: INPUT "": GO TO 460
530 LET LINE=20: GO SUB 940: LET LINE=21: GO SUB 940
540 LET LINE=16: PRINT AT LINE,0;"ANY KEY WHEN YOU ARE READY"
550 PAUSE 1: PAUSE 0: GO SUB 940
555 LET COUNT=0
```

```
 560 FOR Q=1 TO LEN Z$
 565 LET COUNT=COUNT+1
 570 GO SUB 790
 575 IF COUNT=5 THEN PAUSE 2.5*DY: LET COUNT=0: GO TO 590
 580 PAUSE DY
 590 NEXT Q
 600 PRINT AT 9,0;"CHECK COPY"'"PRESS CHARACTERS COPIED"'"USE <SPACE
> FOR UNKNOWN"
 610 LET RT=0: PRINT AT 14,0;: FOR Z=1 TO LEN Z$
 620 LET X$=INKEY$: IF X$="" THEN GO TO 620
 630 IF INKEY$=X$ THEN GO TO 630
 640 PRINT AT 14,Z-1;" ";
 650 IF X$=Z$(Z) THEN PRINT AT 13,Z;Z$(Z);AT 15,Z;X$;: LET RT=RT+1: GO
TO 670
 660 IF X$<>Z$(Z) THEN PRINT AT 13,Z;Z$(Z);AT 15,Z; FLASH 1;X$;
 670 NEXT Z: PRINT AT 14,20;" "
 680 PRINT AT 13,23;"SENT";AT 15,23;"RECEIVED"
 690 PRINT AT 19,18;"SCORE ";RT;"/";LEN Z$
 692 IF SUB=1 THEN RETURN
 695 IF RT>18 THEN GO TO 5000
 698 PRINT #0;">> ANY KEY WHEN READY <<": PAUSE 0: GO TO 360
 700 STOP
 710 REM ************************
 720 REM
 730 REM sender,enter with Z$ as
 740 REM  char to send. If PRINT
 750 REM =1 then chars printed
 760 REM on line 19.
 770 REM
 780 REM ************************
 790 IF CODE Z$(Q)>64 AND CODE Z$(Q)<91 THEN GO TO 810
 800 IF CODE Z$(Q)>57 OR CODE Z$(Q)<48 THEN GO SUB 9000: RETURN
 805 GO TO 820
 810 LET p=CODE Z$(Q)-64: GO TO 830
 820 LET p=CODE Z$(Q)-96: IF p>=-48 AND p<=-39 THEN LET p=p+75
 830 LET n=z(p)
 840 PRINT AT 12,0;
 850 LET x=n-INT (n/2)*2
 860 IF x=1 AND PRINT=1 THEN PRINT INVERSE 1;" dah "; INVERSE 0;" ";
 865 IF X=1 THEN BEEP K,26
 870 IF x<>1 THEN IF PRINT THEN PRINT INVERSE 1;"dit"; INVERSE 0;" ";
 875 IF X<>1 THEN BEEP J,26
 880 LET n=INT (n/2)
 890 IF n>1 THEN GO TO 850
 900 IF PRINT THEN PRINT "="; INVERSE 1;Z$(Q)
 910 RETURN
 920 REM
 930 REM CLEAR LINE 12
 940 PRINT AT LINE,0;" ";TAB 32
 950 RETURN
 960 REM ************************
 970 REM
 980 REM RESET SPEED/CHAR LENGTH
 990 REM
1000 REM ************************
1010 LET J=1.2/S: LET K=J*3: LET M=J+J: RETURN
1020 REM ************************
1030 REM
1040 REM DATA FOR CHARS & LOAD
1050 REM
1060 REM ************************
1070 DATA 6,17,21,9,2,20,11,16,4,30,13,18,7,5,15,22,27,10,8,3,12,24,14,25,29,19
,63,62,60,56,48,32,33,35,39,47,63
1080 DIM z(36)
1090 FOR u=1 TO 36: READ n: LET z(u)=n: NEXT u
1100 LET S=4: LET T$="#### G4INP MORSE AID ####"
```

```
1110 GO SUB 1010
1120 RETURN
1130 REM **********************
1140 REM LESSON DATA
1150 REM **********************
1160 DATA "1","EISHTMO"
1170 DATA "2","AUV"
1180 DATA "3","NDB"
1190 DATA "4","AWJ"
1200 DATA "5","CKPG"
1210 DATA "6","RLQZ"
1220 DATA "7","FXY"
1230 DATA "8","1234567890"
1240 REM
1250 DATA "A","WORDS"
1260 REM
1270 DATA "C","DIFFICULT CHARS."
1280 DATA "D","SENDING PRACTICE"
1290 DATA "E","SAVE SYSTEM"
1300 REM
1310 REM MAIN MENU
1320 REM
1330 POKE 23658,8: BORDER 1: PAPER 1: INK 7: CLS
1340 PRINT T$'"MENU PRESS KEY CHOICE"''
1350 RESTORE 1160
1360 FOR Z=1 TO 12: READ L$,Z$
1370 PRINT L$;TAB 10;Z$
1380 NEXT Z
1390 PRINT AT 19,0;" ";TAB 31;AT 19,0;"SPEED = ";S;" WPM"
1400 PRINT '"PRESS <S> TO CHANGE SPEED"
1410 LET Z$=INKEY$: IF Z$="" THEN GO TO 1410
1420 IF Z$>="1" AND Z$<="9" THEN LET V=10*VAL Z$: RESTORE 1150+V: RETUR
N
1430 IF Z$="A" THEN LET L$="RANDOM CHOICE": GO TO 5000: REM WORDS
1440 REM
1450 IF Z$="C" THEN GO TO 1750: REM SENDING
1460 IF Z$="S" THEN GO TO 1530
1470 IF Z$="D" THEN GO TO 4000
1480 IF Z$="E" THEN GO TO 1670
1490 GO TO 1410
1500 REM
1510 REM SPEED CHANGE
1520 REM
1530 BEEP .3,30: POKE 23617,236: INPUT "NEW SPEED PLEASE "; LINE Z$
1540 IF Z$="" THEN GO TO 1530
1550 FOR Z=1 TO LEN Z$
1560 IF Z$(Z)<"0" OR Z$(Z)>"9" THEN GO TO 1530
1570 NEXT Z
1580 LET S=VAL Z$
1590 IF S>1 AND S<35 THEN GO SUB 1010: GO TO 1390
1600 PRINT #0:">> NOT A VALID SPEED!! <<": PAUSE 100: INPUT "": GO TO
1530
1610 REM
1620 REM COURSE SUMMARY SYSTEM NOT SETUP YET
1630 REM
1640 GO TO 90
1650 REM
1660 REM SAVE SYSTEM
1670 CLS : PRINT AT 10,0;"SETUP RECORDER/PRESS A KEY"
1680 PAUSE 0
1690 SAVE "CWAID" LINE 10
1700 CLS : PRINT AT 10,0;"REWIND TO VERIFY"
1710 VERIFY ""
1720 GO TO 90
1747 REM
1748 REM DIFFICULT PRACTICE
```

```
1749 REM
1750 BEEP .3,30: POKE 23617,236: INPUT "ENTER CHARACTERS TO PRACTICE
"; LINE Z$
1760 IF Z$="" THEN GO TO 1750
1770 LET L$="PRACTICE": LET A$=Z$
1780 GO TO 360
1997 REM
1998 REM COURSE MODERATOR NOT SET UP YET
1999 REM
3997 REM
3998 REM RECEIVE SECTION
3999 REM
4000 DATA 1,254,254,237,120,203,247,79,6,0,201
4010 RESTORE 4000
4020 FOR Z=0 TO 10: READ Y
4030 POKE USR "T"+Z,Y: NEXT Z
4040 CLS : PRINT T$'"SENDING PRACTICE"
4042 PRINT '"USE <CAPS SHIFT> AS A MORSE KEY""SEND A DASH & DOT FIR
ST TO      SYNCHRONISE DECODER"
4043 PRINT '"KEEP KEYING WORD UNTIL YOU CAN  REPRODUCE IT EXACTLY.
"
4044 PRINT '"USE <CAPS/Z> FOR NEXT WORD""USE <CAPS/X> FOR MAIN MENU
"
4045 LET R2=1+INT (RND*8): RESTORE 9490+10*R2
4046 FOR Z=1 TO 1+INT (RND*20): READ Z$: NEXT Z: PRINT '"SEND THIS : "
;Z$: PRINT
      ET D$="ETIANMSURWDKGOHVF-L-PJBXCYZQ--54-3---2-------16-/-----7---
      ---s------?-------------------------"
4060 LET D=0: LET E=0: LET C=0.5: POKE 23692,-1
4070 LET A=255-USR USR "T"
4080 IF A=0 THEN GO TO 4070
4085 IF A=5 THEN GO TO 90
4090 IF A=3 THEN GO TO 4000
4100 LET B=0
4110 LET A=255-USR USR "T": LET B=B+10
4120 IF A=0 THEN LET C=((5*C)+(B+B))/6: LET D=D+D+1: LET E=E+E: GO TO 4
180
4130 IF B<0.5*C THEN GO TO 4110
4140 LET D=2*D: LET E=E*2+1
4150 LET A=255-USR USR "T": LET B=B+10
4160 IF A=1 THEN GO TO 4150
4170 LET C=((4*C)+B)/5
4180 LET B=0
4190 LET A=255-USR USR "T": LET B=B+10
4200 IF A=1 THEN GO TO 4100
4210 IF B<0.5*C THEN GO TO 4190
4220 LET E=E+E: LET R=D+E: IF R>100 THEN LET R=100
4230 PRINT D$(R);
4240 LET D=0: LET E=0
4250 LET A=255-USR USR "T": LET B=B+10
4260 IF A=1 THEN GO TO 4100
4270 IF B<2*C THEN GO TO 4250
4280 PRINT " ":: GO TO 4070
4997 REM
4998 REM WORDS
4999 REM
5000 CLS : PRINT T$'"WORD PRACTICE""LESSON:";L$;"  SPEED:";S
5005 IF Z$="A" THEN LET R2=1+INT (RND*8): GO TO 5015
5010 LET R2=VAL L$
5015 LET PRINT=0: RESTORE 9490+10*R2
5020 LET DY=5: LET SUB=1
5025 FOR Y=1 TO 20: READ Z$
5030 GO SUB 540
5040 INPUT "": PRINT #0;">> ANY KEY NEXT WORD/Menu <<": PAUSE 0: INPU
T ""
5042 IF INKEY$="M" THEN GO TO 1330
```

```
5045 LET LINE=13: GO SUB 940
5050 LET LINE=15: GO SUB 940
5055 LET LINE=18: GO SUB 940
5060 LET LINE=14: GO SUB 940
5065 NEXT Y
5070 INPUT "": PRINT #0;">> ANY KEY FOR MENU <<": PAUSE 0: INPUT ""
5075 GO TO 1330
8996 STOP
8997 REM
8998 REM ERROR IN INPUT
8999 REM
9000 PRINT #0;">> CHARACTER ";Z$(Q);" NOT VALID <<": PAUSE 100: INPUT
 ""
9010 RETURN
9500 DATA "THEME","THESE","TOM","HOT","THEM","HIST","TEEM","MOST","T
HE","TOE","SHE","MOIST","HOOT","MITE","TOME","HOSE","HOSES","THOSE","
TOTEM","HOIST"
9510DATA "THAT","SHUT","MAVIS","MAUVE","HOUSE","SUAVE","EAVES","MUS
E","VAST","TAME","HUSH","SOOT","MOUSE","THOU","MOAT","THAT","METE",
"OUST","VOTE","STEAM"
9520 DATA "AVENUE","TOMATOE","BOVINE","TEASED","MOBBED","VETOED","B
OTTOM","ABBOT","BOAST","HOUND","ABOUT","TON","NOTED","HIM","AS","IT
","ABOUT","SHE","TON","HAT"
9530 DATA "WISH","WENT","WANT","WEST","WHIST","JADE","JIBE","MOWN","V
AIN","JAUNT","WANTED","WEEDED","WISHED","SEEDED","HAUNTED","SWEDE",
"OWNED","TOWN","JIVE","HEWN"
9540 DATA "PACK","APT","BAKE","PATH","COAT","PASTE","GHOST","GOT","G
OWN","CUTE","WAGES","GAUGE","GUEST","KATE","TACK","COAST","GAINS","
AGAIN","JOKE","PAWN"
9550 DATA "QUEEN","RATE","LATE","RING","REQUEST","PROGRESS","RITZ","
ZONE","ZERO","RESETS","PROVE","PROSPECT","QUIET","LAST","REPEAT","PR
OGRAMME","PRESS","QUEST","WE","ZEBRA"
9560 DATA "YACHT","FIRST","FATE","LAZY","YEAST","FAULT","FENCE","HAZ
Y","YIELD","FAST","FERRY","CRAZY","YOURS","FEAST","FIGURE","MERRY","
YOUTH","FLIGHT","PIXEY","BERRY"
9570 DATA "19283","74650","25374","86348","74725","10143","57375","82654","0514
6","10892","12460","35891","14376","07129","58230","25583","73990","15879","8743
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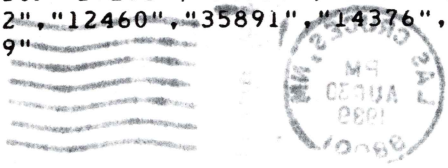

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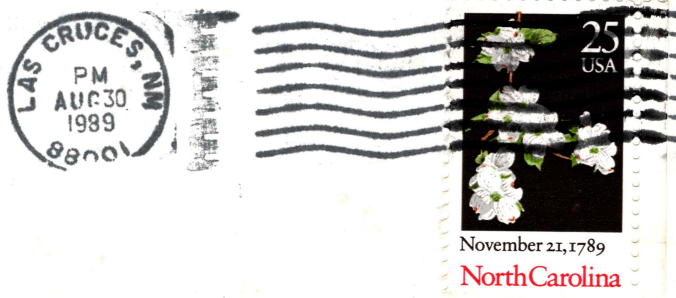

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